

Application No. 09/876,218
Amendment dated December 20, 2005
Reply to Office Action of July 20, 2005

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-10 (Cancelled)

Claim 11. (currently amended) A method for managing revenue for an event, the event having event parameters including timing, resource, and discount categories, the method comprising:

a step for initializing forecasting parameters, wherein the forecasting parameter initialization step comprises creating a matrix comprising entries for each combinations of said timing, resource, and discount categories such that each row of the matrix is an allowable combination of each discount category, and wherein said timing categories comprising past and present future timing categories;

a step for aggregating historical data using the forecasting parameters to generate initial forecast statistics for said matrix entries, taking into account the event parameters, wherein the initial forecast statistics for each of said entries comprise a fractional build curve, final net forecast, and remaining demand forecast,

wherein each of the fractional build curves for entries associated with future timing categories is generated by calculating a weighted average of one or more historical curves associated with relevant past timing categories, wherein the weighting for each of the historical curves and the fractional build curves are calculated by normalizing the historical curves found by $a * (1-a)^{(j-1)}$ where a is a predefined smoothing constant and j is a number of time periods between the timing period of the

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historical curve and the timing period of the fractional build curve, and
wherein the final net forecast and remaining demand forecast for each of the
entries is calculated using a booking curve comprising prior sales and forecasted net
sales associated with each of the entries;
a step for forecasting demand by updating the initial forecast statistics based on current
data; and
a step for optimizing pricing of the event, wherein said pricing optimization step
comprises, defining a forecast mean for each of the entries representing the net remaining
demand associated with the entries, setting a forecast variance for each of the forecast means,
aggregating the forecast means for the entries associated with available discount categories,
aggregating the forecast variance for the entries associated with available discount categories,
calculate an average profit for each row by aggregating a profit per each of the discount category
times the forecast mean for the discount category and dividing by the aggregated resource mean,
and calculating the expected demand, expected profit, and marginal value for each row of the
matrix, determining a maximum expected profit for each row using the expected demand,
expected profit, and marginal value associated with that row, and identifying the row of entries
producing a maximum expected profit.

Claim 12. The method of claim 11, wherein the aggregating is capable of selecting a virtual event category that matches the event, and wherein the virtual event category is used to calculate the initial forecast statistics.

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Claim 13. The method of claim 12, further comprising:

a step for calculating seasonal event demand adjustment values,
wherein the aggregating step produces seasonally-adjusted general statistics for
the virtual event category for various combinations of the resource and discount categories, and
wherein the demand forecasted in the forecasting step includes demands for days-out bins, a gross event demand, a seasonalized event demand, and an end-point demand.

Claim 14. (cancelled)

Claim 15. (currently amended) The method of claim 11 [[14]], wherein the
forecasting step updates the fractional build curve, forecast, and [[remanding]] remaining
demand forecast.

Claim 16. (original) The method of claim 11, wherein the optimizing step
adjusts an availability of the discount categories.

Claim 17. (currently amended) The method of claim 11, further comprising:
a step for calculating seasonal event demand adjustment values,
wherein the seasonal event demand adjustment values are used by the aggregating
and forecasting steps.

Claim 18. (original) The method of claim 11, wherein the forecasting step takes
into account external factors.

Claim 19. (original) The method of claim 18, wherein the external factors include opponent information, win/loss record, promotions, and weather.

Claim 20. (currently amended) The method of claim 11, further comprising:
a step for allowing a user to adjust calculations performed in the initializing, aggregating, forecasting, and optimizing steps.

Claim 21. (currently amended) A method for managing revenue for a plurality of events, comprising:

loading historical data and event information regarding each of the plurality of events, wherein the event information categories includes venue configuration, event, date and time, resource category, and discount category information;
initializing forecasting parameters for each [[event in]] of the plurality of events; generating initial forecast statistics for each [[event in]] of the plurality of events by aggregating appropriate historical data using corresponding forecasting parameters, taking into account corresponding event information, wherein the initial forecast statistics comprise a fractional build curve, final net forecast, and remaining demand forecast for each of event information categories,

wherein a fractional build curves associated with a future timing categories is generated by calculating a weighted average of a historical curves associated with a past timing categories, wherein the weighting for the historical curve and the fractional build curve are calculated by normalizing the historical curves found by $a * (1-a)^{(j-1)}$ where

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a is a predefined smoothing constant and j is a number of time periods between the timing period of the historical curve and the timing period of the fractional build curve,
updating the initial forecast statistics for each [[event in]] of the plurality of events based on appropriate current data, wherein the updating step comprises forecasting demand for the each of the plurality of events; and

optimizing pricing for each [[event in]] of the plurality of events wherein said pricing optimization step comprises

a step for calculating the expected demand, expected profit, and marginal value each possible combinations of pricing categories for the events,
determining a maximum expected profit for possible combinations of pricing categories using the expected demand, expected profit, and marginal value associated with that row, and

identifying the combination of pricing categories producing a maximum expected profit.

Claim 22. (original) The method of claim 21, wherein the generating step is capable of selecting a virtual event category for each event in the plurality of events, wherein the virtual event category matches a corresponding event and is used to calculate the initial forecast statistics for the corresponding event.

Claim 23. (original) The method of claim 22, further comprising:
calculating seasonal event demand adjustment values for each of the plurality of events,

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wherein the generating step produces seasonally-adjusted general statistics for the virtual event category for various combinations of the resource and discount categories for each of the plurality of events, and

wherein the demand forecasted in the forecasting step includes demands for days-out bins, a gross event demand, a seasonalized event demand, and an end-point demand.

Claim 24. (cancelled).

Claim 25. (currently amended) The method of claim 21 [[24]], wherein the forecasting step updates the fractional build curve, forecast, and [[remanding]] remaining demand forecast.

Claim 26. (original) The method of claim 21, wherein the optimizing step adjusts an availability of the discount categories for each event in the plurality of events.

Claim 27. (original) The method of claim 21, further comprising:
calculating seasonal event demand adjustment values for each of the plurality of events,
wherein the seasonal event demand adjustment values are used in the generating and forecasting steps.

Claim 28. (original) The method of claim 21, wherein the forecasting step takes into account external factors.

Claim 29. (original) The method of claim 28, wherein the external factors include opponent information, win/loss record, promotions, and weather.

Claim 30. (original) The method of claim 21, further comprising:
allowing a user to adjust calculations performed in the loading initializing, generating, forecasting, and optimizing steps.

Claims 31-33 (cancelled)

Claim 34. (currently amended) A program storage device readable by a machine, tangibly embodying a program of instructions executable by a machine to perform method steps of managing event revenue, the event having event parameters including timing, resource and discount categories, the method steps comprising:

initializing forecasting parameters, wherein the forecasting parameter initialization step comprises creating a matrix comprising entries for each combinations of said timing, resource, and discount categories such that each row of the matrix is an allowable combination of each discount category, and wherein said timing categories comprising past and present future timing categories;

aggregating historical data using the forecasting parameters to generate initial forecast statistics for said matrix entries, taking into account the event parameters, wherein the initial forecast statistics for each of said entries comprise a fractional build curve, final net forecast, and remaining demand forecast,

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wherein each of the fractional build curves for entries associated with future timing categories is generated by calculating a weighted average of one or more historical curves associated with relevant past timing categories, wherein the weighting for each of the historical curves and the fractional build curves are calculated by normalizing the historical curves found by $a * (1-a)^{(j-1)}$ where a is a predefined smoothing constant and j is a number of time periods between the timing period of the historical curve and the timing period of the fractional build curve;

forecasting demand by updating the initial forecast statistics based on current data; and

optimizing pricing of the event, wherein said pricing optimization step comprises, defining a forecast mean for each of the entries representing the net remaining demand associated with the entries, setting a forecast variance for each of the forecast means, aggregating the forecast means for the entries associated with available discount categories, aggregating the forecast variance for the entries associated with available discount categories, calculate an average profit for each row by aggregating a profit per each of the discount category times the forecast mean for the discount category and dividing by the aggregated resource mean, and calculating the expected demand, expected profit, and marginal value for each row of the matrix, determining a maximum expected profit for each row using the expected demand, expected profit, and marginal value associated with that row, and identifying the row of entries producing a maximum expected profit.